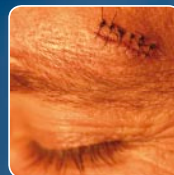
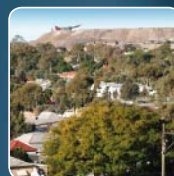


# Snapshot

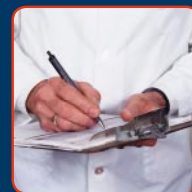
of Australian  
primary health  
care research  
2009



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*This snapshot of recent Australian research projects demonstrates the potential for primary health care research to improve the health of Australians.*

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The views expressed in the publication do not necessarily represent the position of the Australian Government.

# Foreword



I am pleased to introduce the 2009 Snapshot of Australian primary health care research, which builds on the inaugural issue launched last year.

The Australian Government is continuing to pursue a comprehensive health reform agenda to create a fairer, more sustainable health system. Primary health care is a key priority for this Government, and a key component of our reform agenda.

The work of the National Health and Hospital Reform Commission and the development of the National Primary Health Care Strategy will continue to inform future health policy directions for the benefit of all Australians. The 2009-10 Budget showed that, in spite of difficult global economic conditions, the Australian Government is committed to improving the health system including a package of measures to boost the health workforce, and extending our maternity services reforms.

The Government is keen to support the important contribution that primary health care research can make to our health system. Innovative thinking, informed by the best evidence, can have significant benefits for our wellbeing, and can help to reduce the burden on the hospital system.

The Australian Government has also made a major investment in building and upgrading health, medical research and training facilities across Australia as part of the 2009-10 Budget. This investment is occurring across our health system with \$430.3 million to upgrade health research infrastructure, \$596 million invested to expand cancer research facilities and \$7 million to boost the university departments of rural health. The upgraded infrastructure will ensure that the nation's top researchers can continue to have the best possible conditions to help improve the lives of all Australians.

This booklet highlights stories of emerging evidence and best practice which can assist in the development of future health policy. It covers a wide spectrum of health priorities, including depression, heart disease, child and youth health. It also addresses the use

of information technology to deliver better health solutions to people in remote areas – showing that distance need no longer be an insurmountable barrier to quality primary health care.

The Australian Government has contributed funding and support to each of these projects through the Primary Health Care Research, Evaluation and Development (PHCRED) strategy. The strategy is designed to improve Australia's primary health research capacity, translating ideas and data into clinical care and driving improvements to benefit all Australians.

The PHCRED strategy continues to support large and small research projects, researchers who are in the early stages of their careers, and large-scale collaborations between health services, universities and communities.

Primary health care research is critical for Australia's health system to meet the challenges of the 21st century, and I congratulate the researchers featured herein.

*Nicola Roxon  
Minister for Health and Ageing  
Canberra*

# 1 Gudaga – healthy baby



## **Project:**

Assoc Professor Elizabeth Comino,  
Centre for Primary Health Care and  
Equity, University of New South  
Wales

## **Funding:**

National Health and Medical  
Research Council Primary Care

The word 'Gudaga' means 'healthy baby' and that is what this project is about.

There is little information on the health needs and service use of Aboriginal infants and their mothers in urban areas, potentially limiting health opportunities for families and responses by health services.

In the first research of its kind on the eastern seaboard of Australia, between October 2005 and September 2007 the Gudaga study documented birth outcomes, health, development, and health service use and needs of Aboriginal infants and their mothers in an urban community.

The study was committed to building the capacity of those involved, particularly its Aboriginal project officers who were young

mothers from the local community. Strong partnerships with the local Aboriginal community contributed to the success of the project in numerous ways, including the high retention rates of the more than 150 child participants and their families.

The study had a direct impact on the thinking about and commitment to the health services needs of Aboriginal children in the region. The regional health service is implementing a program, 'Bulundidi Gudaga – improving the health of Aboriginal infants in Campbelltown', an antenatal and postnatal sustained home visiting program for local families. And for the first time the health service has committed recurrent funding to Indigenous child health.



*The study was committed to building the capacity of those involved, particularly its Aboriginal project officers who were young mothers from the local community. Strong partnerships with the local Aboriginal community contributed to the high retention rates of the more than 150 child participants and their families.*



## 2 Re-order – exemplary depression care



### **Project:**

Professor Jane Gunn,  
Department of General Practice,  
University of Melbourne

### **Funding:**

Australian Primary Health Care  
Research Institute Stream Funding

Depression is the single largest cause of disability burden in Australia, and GPs provide a great deal of first contact and management for patients. Yet general practice depression care has not been well designed or resourced, and the current evidence base is mostly unrelated to Australian primary care.

The re-organising care for depression and related disorders in the Australian primary health care setting (re-order) study conducted consultations with 576 patients and 310 non-patient stakeholders about their views on exemplary depression care, and worked directly with six general practices and their 55 staff to document how depression care occurs.

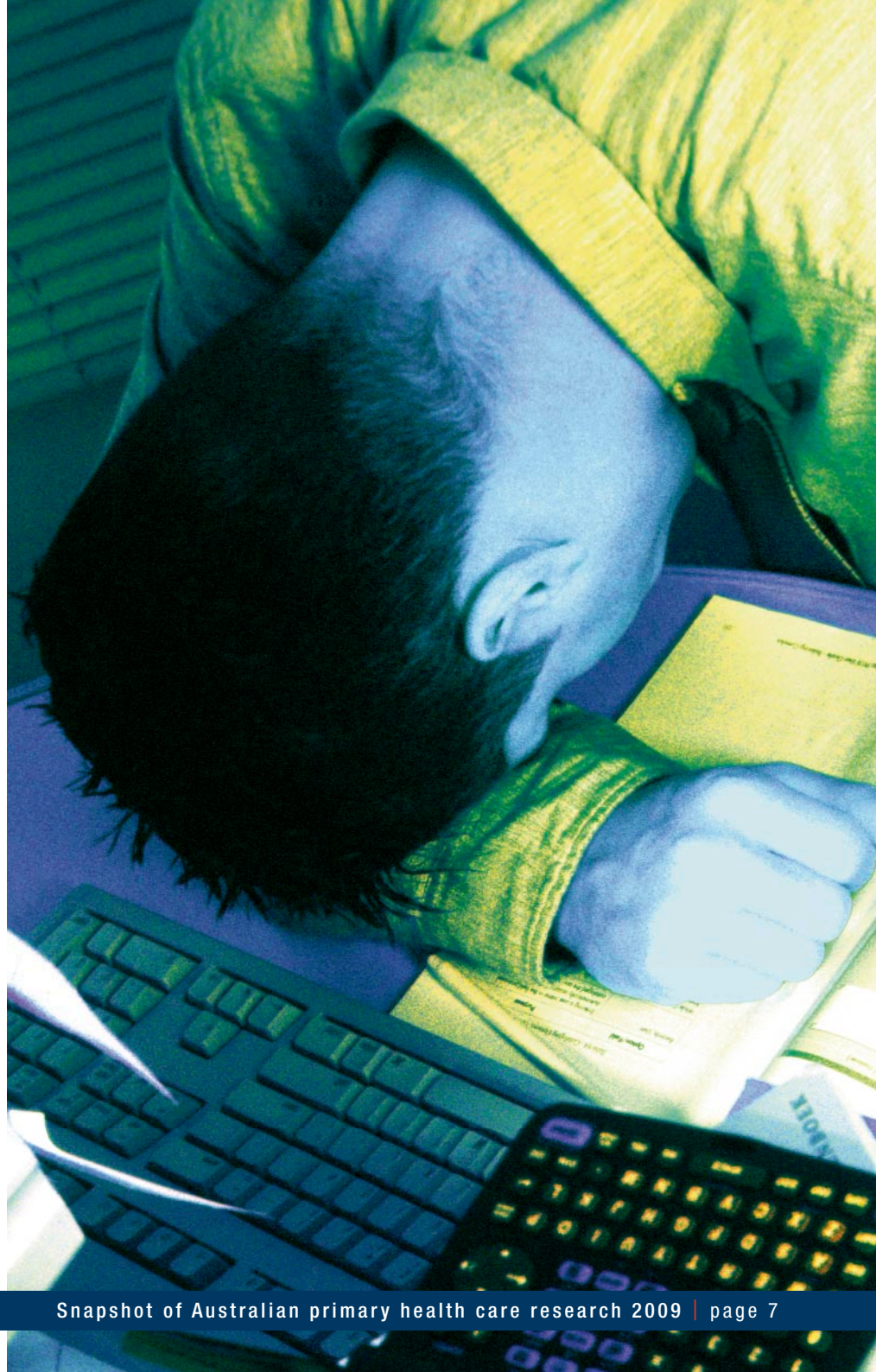
The first study of its kind in terms of subject matter and methodology, 're-order' developed an outstanding and original evidence base.

The project developed ground-up, practice-driven interventions and principles to understand and reach agreement about: who is depressed and who is not (including the techniques to decide on this); shared sets of techniques to deal with depressed patients; agreement on who does depression work, how depression work is allocated and organised; and, how practices will know they are doing good work.

The 're-order' data confirmed that patients rely heavily on GPs for their mental health care. This is particularly relevant for mental health and primary care policy and the education and training of GPs in the future. The impact of 're-order' at the practice level has been profound with participants acknowledging that the study was in most cases the first time ever that groups had met to discuss depression care management.



***“** The study is outstanding for its whole of practice approach resulting in the development of a principle based model to guide the re-organisation of the Australian primary health care system for exemplary depression care. **”***



# GP-dermoscopy



Prof Jon Emery



Assoc Prof Scott Menzies

## Project:

Professor Jon Emery, General Practice, School of Primary, Aboriginal and Rural Health Care, University of Western Australia and Associate Professor Scott Menzies, Director, The Sydney Melanoma Diagnostic Centre, Sydney Cancer Centre, Royal Prince Alfred Hospital

## Funding:

National Health and Medical Research Council Primary Care Project Grant

Australia has the highest rate of melanoma in the world but this potentially fatal condition remains a diagnostic challenge in primary care. Australian GPs are reasonably sensitive at diagnosing melanoma, but this is estimated to be at the expense of excising 20 to 30 benign skin lesions for each melanoma diagnosed.

This project was conducted by a collaboration of researchers spread across four countries. This trial tested whether training GPs in the use of dermoscopy and digital monitoring improved their management of pigmented skin lesions. Sixty-three GPs from 19 practices in Perth completed training in the diagnostic aids and recruited 324 patients with 374 pigmented skin lesions that would have been excised or referred in routine practice.

The intervention resulted in a 63% reduction in excision or referral of benign lesions.

Of the 42 malignant lesions, only one in-situ melanoma was incorrectly managed.

The trial demonstrated that training GPs to use these diagnostic aids made a big difference - significantly reducing the number of skin excisions for benign lesions while enabling GPs to be very sensitive in detecting melanoma.

Australian GPs are increasingly obtaining dermatoscopes (skin surface microscopes for detecting skin lesions) and, to a lesser extent, digital monitoring equipment. The trial's findings support the wider dissemination of GP education programs in their use and provide strong justification for GPs to learn these important techniques for use in their daily practice.



**f** The trial demonstrated that training GPs to use these diagnostic aids made a big difference – significantly reducing the number of skin excisions for benign lesions while enabling GPs to be very sensitive in detecting melanoma. **;**



# 4 Diabetes prevention



## Project:

Professor James A Dunbar,  
Greater Green Triangle, University  
Department of Rural Health, Flinders  
University and Deakin University

## Funding:

Supported by the Primary Health  
Care Research, Evaluation and  
Development Strategy and the  
Australian Government Department  
of Health and Ageing Diabetes  
Prevention Pilot Initiative

There is strong evidence from  
clinical trials that lifestyle changes  
can more than halve the incidence of  
Type 2 Diabetes Mellitus (T2DM).

With more than 40,000 new cases  
of T2DM reported in Australia each  
year - compromising individual  
quality of life and increasing the  
burden of treatment - prevention is a  
desirable strategy.

The Greater Green Triangle Diabetes  
Prevention Project worked with  
three rural general practice clinics  
in Victoria and South Australia to  
implement a lifestyle modification  
program to prevent the onset of  
T2DM in a 'real world' primary care  
setting.

A total of 311 at risk adults  
participated in the project's series  
of structured group-counselling  
sessions, covering nutrition and  
physical activity.

Significant improvements were seen  
in weight, waist circumference,  
glucose and lipid, and psychological  
measures. It was estimated that  
these outcomes reduced the risk of  
T2DM by 40%. The gains achieved  
were sustained over the following 18  
months.

The study provided decisive  
evidence that using a lifestyle  
intervention program in primary  
care is feasible and can significantly  
reduce the risk and burden of  
diabetes.

Already its results have led to  
'Life! Taking Action on Diabetes',  
a primary care-based lifestyle  
modification program for 25,000  
Victorians aged 50 years and over  
and Aboriginal Victorians of all ages,  
and informed the standards for  
national Medicare items for general  
practice diabetes prevention.

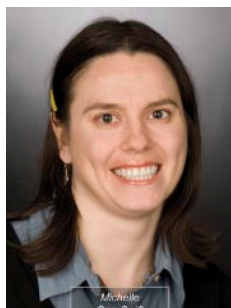
***f** The study provided decisive evidence that using a lifestyle intervention program in primary care is feasible and can significantly reduce the risk and burden of diabetes.*





# 5

## Your defiant child



### Project:

Michelle Carr Swift,  
Discipline of General Practice,  
Flinders University

### Funding:

Primary Health Care Research,  
Evaluation and Development  
Strategy: Research Development  
Program Fellowship

Childhood behavioural and developmental problems have a high prevalence in Australia, yet many parents face barriers to accessing timely help from specialist mental health services, particularly in rural areas.

This new project involved the collaboration of a university department of general practice, regional mental health services, and a primary health care professional. They conducted a randomised controlled trial to evaluate whether a self-directed parenting program could work as an intervention for children with complex behavioural and developmental problems. The program included the self-help book, 'Your Defiant Child', and weekly telephone support from a primary health care professional.

The trial involved 29 children aged two to 12 years who were taken from waiting lists for rural child mental health services in South Australia.

After eight weeks children in the intervention group showed significantly better outcomes and by the end of the trial 44% were below the clinical range for behavioural problems, compared with 16% in the comparison group, and parents were satisfied with the program.

This was the first trial of this type in a 'real world' rural setting in Australia. It positively demonstrated that an efficient and effective child mental health care program can be provided to rural families by a primary health care professional, in partnership with specialist child mental health services.

The 'Your Defiant Child' program is now being made available across SA and has attracted interest from professionals in other states and New Zealand.



# Your Defiant Child

Research workbook and study guide

*After eight weeks children in the intervention group showed significantly better outcomes and by the end of the trial 44% were below the clinical range for behavioural problems, compared with 16% in the comparison group, and parents were satisfied with the program.*



# 6 Linking health professionals for better patient outcomes



Avonia Donnellan



Dr Caroline Bulsara

## Project:

Avonia Donnellan and Dr Caroline Bulsara, Great Southern GP Network and University of Western Australia

## Funding:

Supported by the Primary Health Care Research, Evaluation and Development Strategy and Australian Government Department of Health and Ageing project funding

The Great Southern GP Network supports health professionals working across 98,374 square kilometres in Western Australia. To overcome the challenges of distance, the network partnered with the University of Western Australia's (UWA) Centre for Software Practice to pursue an innovative virtual solution that links health providers.

The web-based 'Great Southern Managed Health Network' (GSMHN) now connects GPs, specialists, hospitals, aged care facilities and allied health providers through a range of services and applications - such as shared electronic health records, secure communications, and remote clinical and administrative management – underpinned by encryption strategies that comply with national data security standards.

The project partnership extended to include UWA primary health

care researchers to undertake a formal qualitative and quantitative evaluation of the project. They found the GSMHN has resulted in greater speed of information transfer, more efficient work practices, better communication with health providers, and better access to patient information.

The evaluation study has enabled the project to substantiate reports on its performance and to showcase comprehensive and robust evidence of its wider potential. Already the project is being rolled out in other areas of WA and has been chosen for inclusion in an Organisation for Economic Co-operation and Development project on the use of information and communication technologies in the health sector.

This innovative local project has proven distance is no barrier to improving patient care if the right links are in place.

**f** *The web-based 'Great Southern Managed Health Network'... has resulted in greater speed of information transfer, more efficient work practices, better communication with health providers, and better access to patient information.*





# 7

## Threats to Australian patient safety



### Project:

Dr Meredith Makeham,  
School of Public Health and  
Community Medicine, University of  
New South Wales

### Funding:

National Health and Medical  
Research Council Project Grant;  
National Health and Medical  
Research Council Scholarship; and  
Primary Health Care Research,  
Evaluation and Development  
Strategy Research Development  
Program Fellowship

Although more than two million GP services are provided each week in Australia, patient safety research and policy has so far been mainly focussed outside the primary health care setting.

A team at the University of Sydney including Professor Michael Kidd, Dr Chris Cooper and Clinical Professor Michael Mira conducted this major study which sought to fill local and international evidence gaps by developing a suitable error reporting system, calculating the incidence of reported error from GPs in the community setting, and developing a new general practice classification system to describe threats to patient safety.

The Threats to Australian Patient Safety (TAPS) study involved a representative sample of NSW GPs anonymously reporting errors using a secure website. In the first 12 months, 433 submissions were lodged, containing 418 error reports.

Analysis of the rich collection of reports demonstrated there was about one error per 1,000 patients seen per year, and that the majority of errors related to health care systems rather than professional knowledge or skill.

The study's findings represent the first known validated calculations of the incidence of reported error in general practice. The successful new error reporting and classification systems will inform further investigations and initiatives in primary health care safety and quality.

The research has been translated into a series of clinical lessons for general practice. The study also found a recurring patient safety risk related to a failure to constitute a commonly used vaccine correctly due to its packaging. NSW Health alerted GPs, and distribution in this form was ceased.



**f** *The TAPS study is an example of Australian General Practice research being translated into a series of practical lessons aimed at assisting clinicians and others in developing strategies to avoid threats to patient safety in our everyday practice.*



# 8 Blood lead screening review



## Project:

Frances Boreland,  
Broken Hill Centre for Remote Health  
Research, Department of Rural  
Health – Broken Hill, The University  
of Sydney

## Funding:

Supported by the Primary Health  
Care Research, Evaluation and  
Development Strategy

In 1991, elevated blood lead levels were identified as a significant public health issue for pre-school aged children in the western NSW mining town of Broken Hill. A major program to reduce blood lead levels was subsequently introduced. Although average blood lead levels have fallen by two-thirds, levels in one in four children remain above the current guideline.

Annual blood screening of one to four-year-old children is undertaken to identify those needing further preventive health measures and to monitor the overall success of the program. However, in recent years less than half of eligible children have been attending for screening.

An initial descriptive study found the average age at which children first attended screening was increasing. If this trend continued a significant proportion of the children would miss out on testing entirely.

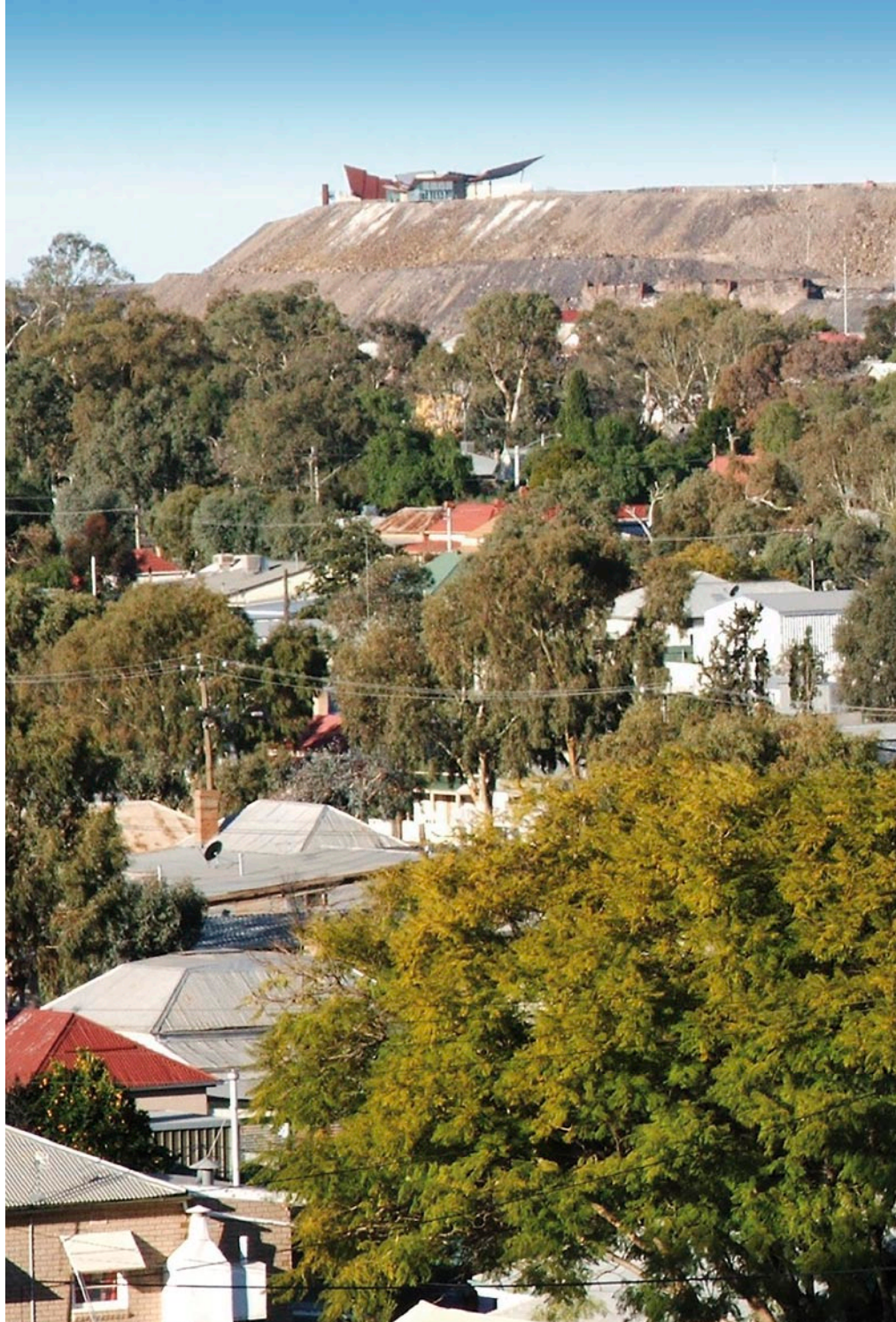
A subsequent community survey showed people perceived that lead had largely gone off the public health agenda, and that children's distress and pain in response to venous blood sampling was not worth it if lead was no longer a major issue.

The study findings resulted in the lead management program being reinvigorated with the establishment of a whole-of-community lead steering group. To minimise children's distress, routine screening was done using a finger prick method, with venous samples only collected to confirm high blood lead levels. Feedback from parents about the new testing method was positive and it removed a significant barrier to screening.

This project was strategic and timely, identifying an emerging problem and helping to develop workable solutions for it.



*“ This project was strategic and timely, identifying an emerging problem and helping to develop workable solutions for it. ”*



# Retinopathy screening in general practice



## Project:

Dr Deborah Askew,  
Discipline of General Practice,  
The University of Queensland

## Funding:

Supported by the Primary Health  
Care Research, Evaluation and  
Development Strategy

Diabetic retinopathy (DR) is the leading cause of preventable blindness in adults in Australia, but if detected and treated early almost all severe vision loss and blindness can be prevented.

Despite the significant benefits, more than one in five Australians with diabetes do not access appropriate DR screening, which is currently provided by optometrists and ophthalmologists, on referral from GPs.

GPs provide most of the medical care to people with diabetes, but a lack of training and equipment limits their ability to screen for DR.

This study tested general practice-based DR screening with two GPs, one from an indigenous health service and one from a general practice diabetes clinic. After training they reported on patient retinal photographs taken by a practice nurse with a non-mydratic camera (used to photograph the retina without dilating the pupils). Comparison to ophthalmologist

assessments of the photographs found the GPs' diagnostic sensitivity and specificity met the national DR screening criteria.

Access to culturally competent health services is an issue for indigenous Australians. This project enabled an Indigenous Health Service to provide DR screening to their patients with diabetes within a physical setting where the patients were comfortable and safe, by health care professionals they knew and trusted. They found that 58% of their patients with diabetes (49/84) did not have DR, and therefore no longer required referral to the ophthalmology outpatient department 20 kms away. This demonstrates the potential of this project to reduce the number of inappropriate referrals to ophthalmologists.

This research successfully tested an innovative model of primary care that demonstrates GPs can use advanced skills in routine practice and positively affect access to services and health outcomes.



*The study...found that 58% of their patients with diabetes (49/84) did not have DR, and therefore no longer required referral to the ophthalmology outpatient department 20 kms away.*



# 10

## Enhancing the role of non-GP staff in chronic disease care



### Project:

Professor Mark Harris,  
Centre for Primary Health Care and  
Equity, School of Public Health and  
Community Medicine, University of  
New South Wales

### Funding:

Australian Primary Health Care  
Research Institute Stream Funding;  
and a University of New South  
Wales Faculty Grant

More than three-quarters of  
Australians have at least one  
long-term health condition – such  
as heart disease or diabetes  
– and about 50% of GP-  
patient consultations involve the  
management of such conditions.

To improve the quality of chronic  
disease care and GP workloads,  
there has been an increasing  
emphasis on the role of general  
practice nurses and administrative  
staff. The trend has been supported  
by policy initiatives, such as  
Medicare items for care plans which  
may involve these practice staff.

This study evaluated for the first time  
in Australia the impact on quality of  
chronic disease care of enhancing  
the role of nurses and practice staff.  
One of the largest studies of its  
kind, this cluster randomised control  
trial involved 60 general practices  
in urban and rural NSW, ACT and  
Victoria, and 2,196 patients with  
diabetes or cardiovascular disease.

The study demonstrated that  
where the role of non-GP staff  
was increased, the proportion of  
patients whose care was planned  
increased, referral to external  
services decreased, and patients  
assessed the quality of their care to  
be better. This was achieved without  
disruptions to how the practice team  
worked or reducing job satisfaction.

Confirming the positive impact  
of enhancing the role of general  
practice nurses and administrative  
staff, the study's results have  
important implications for initiatives  
that support chronic disease care in  
general practice, including divisions  
of general practice programs and  
national and state health policies.

***“** The study demonstrated that where the role of non-GP staff was increased, the proportion of patients whose care was planned increased, referral to external services decreased, and patients assessed the quality of their care to be better. **”***





# 11

## Chronic disease management – the big picture



### **Project:**

Dr Sarah Dennis,  
Centre for Primary Health Care and  
Equity, School of Public Health and  
Community Medicine, University of  
New South Wales

### **Funding:**

Australian Primary Health Care  
Research Institute Stream Funding

Chronic diseases will soon account for about 80% of the total burden of ill health in Australia and a solid evidence base is needed to ensure policies and programs support comprehensive quality care.

Previous research examined specific diseases or elements of care, but this new project took a ‘big picture’ approach to identifying the evidence for effective chronic disease management in primary care.

A collaboration of primary care and chronic disease experts undertook a systematic review of the evidence - a total of 141 studies and 23 published systematic reviews - and used the Chronic Care Model as a framework for analysis. This model is used widely in policy forums and comprises six elements: self-management support, delivery system design, decision support, clinical information systems, community resources, and health care organisation.

The project found that self-management support – such as patient education and motivational counselling – improved disease control as well as quality of life and this was particularly effective when delivered by a multidisciplinary team. Decision support in the form of evidence-based guidelines, education materials and meetings, and audit and feedback were found to improve clinical practice and patients’ disease control, and were often supported by clinical information systems to facilitate recall and feedback.

The advantage of this review is that it presents the evidence for a wide range of interventions to manage chronic disease in the primary care setting. The use of the Chronic Care Model as the framework for the analysis means that the results are presented simply and clearly and within a policy context because of the widespread use of the model in both the national and international policy forums.



***f** ...self-management support  
...improved disease control  
as well as quality of life  
and this was particularly  
effective when delivered by a  
multidisciplinary team. **;***



# 12

## Sadness and heart disease



### Project:

Dr Danielle Esler,  
GP and public health registrar,  
Danila Dilba Health Service, Flinders  
University and Monash University

### Funding:

National Health and Medical  
Research Council Primary Care  
Project Grant; Primary Health  
Care Research, Evaluation and  
Development Northern Territory  
grant; and a General Practice  
Education and Training Registrar  
Research Grant

Ischaemic heart disease (IHD) is a major health problem among Indigenous people and depression is a significant risk factor for it. Yet grassroots clinicians wishing to screen Indigenous patients for depression have had a scant evidence base from which to draw upon.

This study assessed the reliability and validity of a depression screening tool – the PHQ-9©Pfizer Inc. – which was modified for use with Aboriginal and Torres Strait Islander people. An Aboriginal Health Worker administered the tool to 34 IHD patients attending an Aboriginal Community Controlled Health Service in Darwin. The results were compared with the outcomes of psychiatric diagnostic interviews.

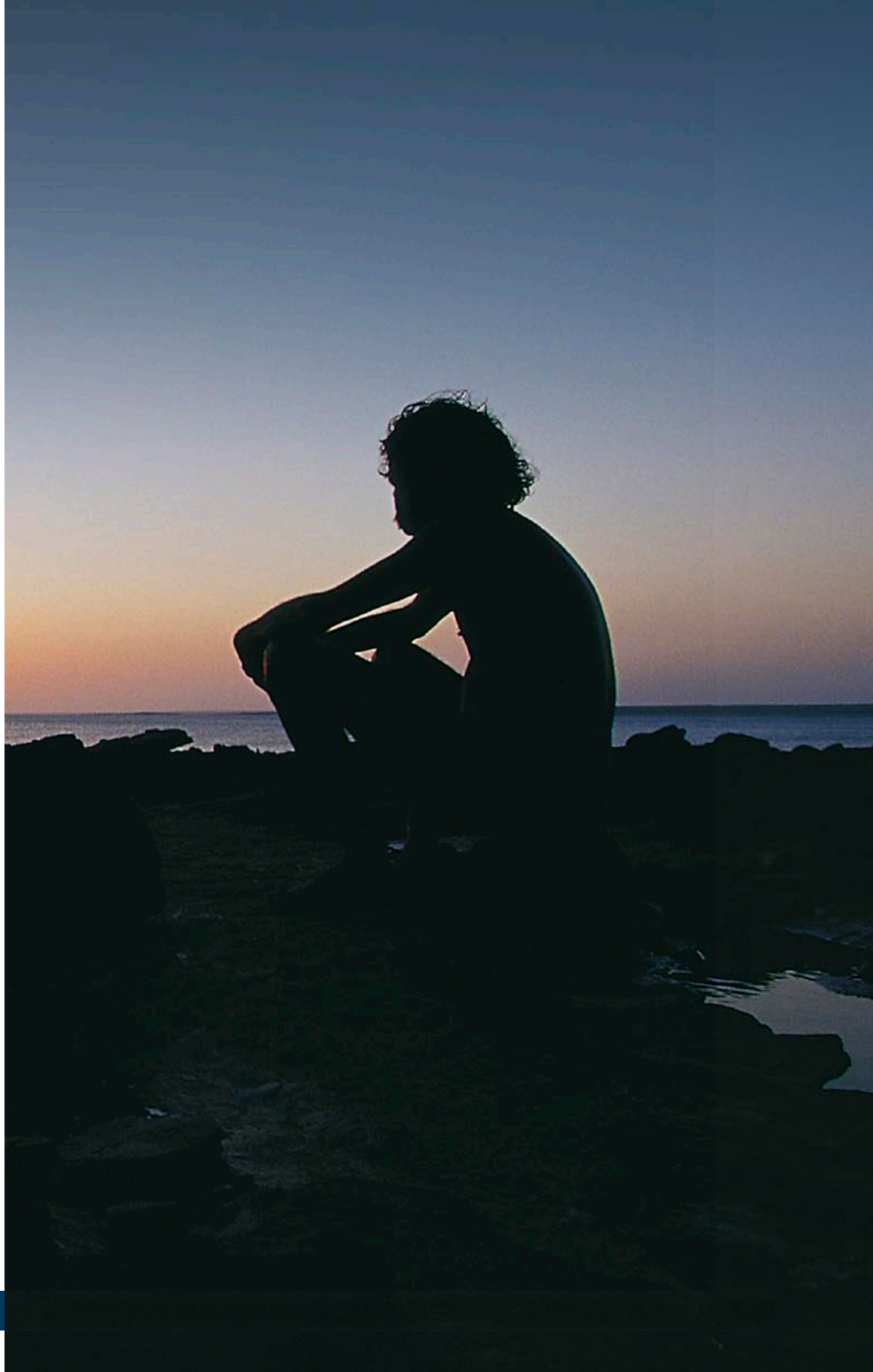
The complete tool and a subsequent ‘mini’ tool showed great promise, with 80% and 100% sensitivity respectively in assessing major depression.

The study found the prevalence of major depression in the patient sample was high at 15.4%.

The study’s ‘participatory action’ research method involved Health Service staff, clients and the community in all phases of the project, significantly strengthening the capacity of both the Health Service and the research project.

The project demonstrates the ability of a small study to address an important evidence gap. The research was initially fed back to the Health Service to use with its IHD patients, and the screening tool is performing well in a larger scale assessment of its use. Revealing the high prevalence of depression among IHD patients has also provided important evidence for Indigenous, cardiology and mental health policy and program planning.

*The study's 'participatory action' research method involved Health Service staff, clients and the community in all phases of the project, significantly strengthening the capacity of both the Health Service and the research project.*





*Snapshot of Australian primary health care research 2009* is a collaborative venture involving representatives from PHC RIS, the Australian Government Department of Health and Ageing, Australian Primary Health Care Research Institute, Australian Association for Academic General Practice and the Royal Australian College of General Practitioners.

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